

## REMARKS & ARGUMENTS

The invention claimed in the present application is directed to essentially dry compositions that contain a high intensity sweetener and exhibit good solubility despite the presence of relatively insoluble, poorly wetting, or hydrophobic ingredients. In particular, the compositions of the present invention have enhanced dispersibility when added to a liquid (*e.g.*, water) and, therefore, enhanced solubility by virtue of the defined particle size of the sweetener therein. The essentially dry compositions of the present invention are suitable for use as foods and/or beverages.

### A. Status of Claims

In item 4a of the Office Action Summary, the Examiner indicates that Claims 86-101 are withdrawn from consideration. However, at item 6, the Examiner rejects Claims 1-85 and 93-98. (Applicants assume that the Examiner realized that Claims 93-98, which are drawn to beverages containing the compositions of Claims 1-85, are properly considered within elected Group I claims.) **Clarification is requested.**

Assuming Claims 93-98 are still under consideration, Applicants submit that the amendments to the independent claims from which Claims 93-98 depend puts these latter claims in condition for allowance.

Applicants have requested cancellation of Claims 86-92 and 99-101 (directed to nonelected subject matter), without prejudice, and have presented new Claim 102 for consideration. Support for Claim 102 is found at page 7, line 9, in view of page 4, lines 9-10. No new matter is added.

All independent claims under consideration, other than new Claim 102, have been amended to clarify that they contain at least about 50%, by weight, of a bulking agent. Independent Claims 14, 30 and 57 have also been amended to expressly indicate that the recited percentage of high intensity sweetener is by weight of the composition. This is consistent with the language in the other independent claims; no new matter is added.

### B. Rejection under Section 103(a)

The Examiner rejects Claims 1 and 2 under 35 U.S.C. 103(a) over U.S. Patent No. 6,399,132 to Ishida et al. ("Ishida") or U.S. Patent No. 5,968,580 to Chuang et al. ("Chuang") in view of the Sweet'n Low product. By the nature of the rejection, Applicants assume that the rejection is over Ishida alone or, alternatively, over Chuang in view of the Sweet'n Low product.

Because all pending claims include, either directly or indirectly via dependency, the same element concerning the level of bulking agent included, only Claim 1 is specifically discussed below. Assuming Claim 1 is allowable, it follows that all other pending claims are allowable.

1). Rejection over Ishida

Ishida is directed to a sweetener composition containing aspartame and acesulfame K (Ace-K) at a ratio between 95:5 to 10:90. Ishida's primary teaching is that the inclusion of Ace-K with aspartame, in these defined ratios, enhances the solubility of the aspartame.

Notwithstanding the importance of combining aspartame and Ace-K, Ishida teaches that the particle size of the aspartame will impact dissolution properties, regardless of the Ace-K/aspartame ratio. (See Col. 3, lines 14-18.) In this regard, Ishida states that "too large particle size of the granules [of aspartame] may result in reduction of the interface area where the particles and the water are in contact, which may, in turn, take a prolonged time period for dissolution." (See Col. 3, lines 24-27.) Interestingly, in spite of the admitted importance of aspartame particle size, Ishida does not provide a range of acceptable particle sizes for this component (in contrast to the specific ranges taught for the Ace-K material). The only discussion of aspartame particle size is in the "Best Mode" section commencing at Col. 4. In Experiment 1, a dissolution comparison is made between aspartame alone and aspartame combined with Ace-K. The aspartame used has an average particle size of 15 $\mu$ m and a maximum particle size of 100  $\mu$ m; the data shows enhanced aspartame dissolution in the presence of Ace-K. Experiment 2 then considers whether benefits are seen at larger aspartame particle sizes. The corresponding Table 2 data indicate there are benefits relative to aspartame alone, but one also sees that use of smaller aspartame particles (those tested in Experiment 1) provides enhanced dissolution times compared to larger particle sizes at all the aspartame:Ace-K ratios tested. From this data, one would reasonably conclude that smaller aspartame particle size is preferred over larger particle size. One could also reasonably conclude that if a bulking agent were included with the Ace-K and aspartame, the importance of small particle size aspartame would become even more important.

Ishida also discloses the optional use of a diluent or excipient, such as sugar alcohol, oligosaccharide or dietary fiber. However, no amounts of these materials is taught. Rather, at Col. 4, Ishida merely says that the diluent may be included "as long as the improved solubility of APM according to the present invention is not affected adversely." Notably, in doing the data comparison to demonstrate the enhanced dispersibility of Ace-K plus aspartame versus aspartame alone, no excipient is used.

As currently amended, independent claims 1, 14, 30, 45, 57 and 71 have been modified to require the inclusion of from about 50% to about 96%, by weight of the composition, of a bulking agent. While Ishida discusses the possibility of including certain diluents within Applicants' description of a bulking agent, as noted there is no teaching of how much can be included while still achieving the benefit sought by Ishida. All Ishida says is that materials other than aspartame

and Ace-K cannot be included at such a level as to impair the effect the Ace-K has on preventing agglomeration of the aspartame particles. While no particular diluent levels are taught by Ishida, Applicants submit that the reference clearly does not teach or suggest a composition comprising at least 50%, by weight, bulking agent. Accordingly, Applicants submit that Ishida does not teach or suggest the dry compositions encompassed by Claims 1-85 and 93-98 as currently amended.

With respect to new Claim 102, which provides that aspartame is essentially the only high intensity sweetener, Applicants submit that Ishida in no way suggests such a composition. Rather, the inclusion of Ace-K in the compositions is the essence of the Ishida invention. As such, Applicants submit that new Claim 102 is allowable over Ishida.

## 2) Rejection Over Chaung in view of Sweet'n Low Product

Chaung is directed to tea-containing beverage mixes comprising tea solids, bulk aspartame and aspartame-coated acid. The problems allegedly addressed by Chaung are set forth in the Disclosure of the Invention section starting at Col. 1. In this regard, Chaung provides that combining the above elements

is necessary in order to produce a desirable product (i.e., a product that when combined with tap water had a low amount of sediment). Products which were formulated with all of the aspartame included as aspartame-coated acid were found to contain increased amounts of the sediment in reconstituted beverages. While not wishing to be bound to a particular theory, it is thought the presence of bulk aspartame prevents, or at least reduces, the grinding of tea solids into fine particles during mixing, particularly during high shear mixing... The bulk aspartame appears to act [sic] as a buffer or sponge during mixing to reduce generation of [the] fine tea solids."

While describing the components and their preferred levels in some detail, Chaung merely mentions, at Col. 3, that additional functional agents - flavor enhancers, colors, vitamins, minerals, and flow agents - may also be included. There is no teaching or suggestion of including the bulking agents required by Applicants' claims. Further, no levels of the optional functional agents is provided. The only mention of the amount of these functional ingredients is in Examples 1 and 2, which include 6.1% and 8.4%, respectively.

Based on the disclosure of Chaung, the Examiner properly concludes the reference itself does not teach or suggest compositions containing the bulking agent required by Applicants' pending claims. The Examiner therefore relies on the Sweet'n Low product to teach the bulking agent.

To establish a *prima facie* case of obviousness (per Section 706.02(j) of the MPEP), the Examiner must meet three basic criteria:

- (1) First, there must be some suggestion or motivation in the prior art to modify the reference or to combine reference teachings.

(2) Second, there must be a reasonable expectation of success in obtaining the claimed invention based upon the references relied upon by the Examiner.

(3) Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Applicants respectfully submit that the Examiner has failed to meet at least criteria 1 and 3 of MPEP § 706.02(j) in the present Action. First, the Examiner has provided no motivation in the art to combine the reference teachings in the first instance. Applicants respectfully submit that no such motivation exists. Chaung is directed to tea-solids containing beverages that have reduced sediment qualities. The Sweet'n Low product is a saccharin-containing sweetener system that is not ingested itself, but instead is used to sweeten food or beverage products. Net, these two prior art items are very different from one another. One skilled in the art therefore would have no motivation to look to the Sweet'n Low product to modify the teachings of Chaung.

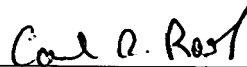
Second, adding a bulking agent isn't taught by Chaung and there is no suggestion from the Sweet'n Low product, even using the benefit of hindsight, to add a bulking agent to the Chaung compositions. That is, even if one were motivated to combine the cited arts' teachings, there is no suggestion in that art that using 50-96% bulking agent would provide a composition having enhanced tea sediment characteristics. Thus, even when combined, the teachings of the cited prior art would not lead to compositions subsumed by Applicants' pending claims.

Based on the foregoing, Applicants request the withdrawal of the Section 103 rejections and the allowance of all claims.

#### CONCLUSION

Applicants request clarification as to whether Claims 93-98 are under consideration. Applicants also request entry of the amendments presented herein and consideration of the accompanying remarks. Applicants further request that the Examiner allow all pending claims in view of those remarks.

Respectfully submitted,



Carl J. Roof  
Attorney for Applicants  
Registration No. 37,708  
Tel: (513) 634-5209

May 5, 2003  
Customer No. 27752